

by Brooke Roberts

When a university in western Wisconsin was looking for an innovative, efficient way to heat and cool their new sports complex, the engineers and mechanical contractors decided a hydronic heating and cooling system would be the right solution for the job.

While the mechanical contractor had used Uponor PEX-a piping systems for in-floor radiant heating projects in the past, they wanted to go with Uponor PP-RCT for the distribution piping on this job to help meet the scope of work, tight timelines, and available space.

Uponor PP-RCT is up to 80% lighter than metallic piping options, which is significant when working with 8", 10", and 12" piping — especially when the system is installed overhead. Uponor PP-RCT also offers faster installation. Welding a steel pipe can take hours; but PP-RCT with heat-fusion welds are much quicker, happening in just minutes. Plus, because there is no open flame, the PP-RCT system does not require the cost and scheduling hassles of fire watch, helping to save time, energy, and resources on the job.



However, because the engineering firm had not originally specified PP-RCT for the project, the mechanical contractor was challenged with getting the material approved for the job. This is where Paul McCulloch, business development manager for Engineering Services at Uponor, was able to step in and provide support. McCulloch, an engineer himself, understands how specifications work and how to implement changes.

With over 20 years of experience in the industry, he is heavily focused on value engineering, understanding how engineers operate, and providing valuable resources to their teams for spec writing and updates.

When McCulloch heard the contractor was interested in using Uponor PP-RCT but needed the signoff from the engineering firm, he took the lead by meeting with the engineering firm's regional and corporate offices, presenting options, and providing detailed calculations from Uponor Construction Services for pipe sizing, velocity requirements, and flow rates.



These conversations helped the engineers understand why Uponor PP-RCT was the best choice for the project, showed them that updating the specification was the right decision, and ultimately helped the contractor install the solutions they knew would support their project goals. The contractor was even able to pass on a labor and cost savings to their customer.

But McCulloch did not work this magic on his own. In addition to the team of design and takeoff estimation experts in the Uponor Construction Services team, he worked closely with his colleague, Patrick Schwappach, the Uponor territory sales manager for Wisconsin, Minnesota, and the Dakotas.

While Schwappach has been with Uponor since 2022, his experience in the industry goes far beyond his years at Uponor. In fact, his experience starts in his childhood. Growing up, his father worked in HVAC and introduced him to many of the core concepts of designing and installing reliable systems at a young age. His passion for understanding the industry and providing the best solution can be seen in action by his many jobsite visits, his help with supply-chain coordination, and preconstruction training sessions.

Training is a major component of installing a new product, and Uponor PP-RCT is no exception. Once the engineering firm included PP-RCT in the specification, the teams coordinated training at the mechanical contractor's shop, making sure all the workers were certified and able to effectively install the large-diameter piping system.

This professional support is not just limited to a single project; it is the level of excellence expected on every job. When engineers and mechanical contractors partner with Uponor, they get a team of experts available at every stage of the project.



The university sports complex utilized the design and estimation experts in the Uponor Construction Services team, not only to help convert the specification, but also to ensure their plans were correct. And planning was of the utmost importance for this unique mechanical room.

"One thing with PP-RCT is you have to plan ahead, otherwise you can paint yourself into a corner. You have to plan ahead for where your flanges and final connections are going to be," said a lead pipefitter for the mechanical contractor.

"Some joints can't be made in place," he said. "But with the lightweight polymer solution, it's easy to prefabricate connections and welds on the floor and lift them into place, minimizing the number of overhead connections needed."

When asked about the experience partnering with Uponor, the mechanical contractor stated, "they've been really good to work with and always keep me informed on how long things will take." This level of communication helps with planning, prioritizing, and helping the project stay on schedule and on budget.

"When it comes to large, complex projects, we are proud to say we provide world-class services and solutions that make these jobs easier to build for our partners," McCulloch concluded.

